UNITED STATES DISTRICT COURT

DISTRICT OF NEBRASKA

BOARD OF REGENTS OF THE UNIVERSITY OF NEBRASKA and UNEMED CORPORATION, Plaintiffs, v. SIEMENS HEALTHCARE DIAGNOSTICS INC., Defendant.	No.: 09-CV-03075-RGK-CRZ

MEMORANDUM OF POINTS AND AUTHORITIES IN SUPPORT OF SIEMENS HEALTHCARE DIAGNOSTICS, INC.'S MOTION FOR PARTIAL SUMMARY JUDGMENT OF NON-INFRINGEMENT OF U.S. PATENT NO. 5,985,670

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I. INTRODUCTION

The 5,985,670 patent claims a system to route patient specimens, such as blood samples, to various workstations for testing within a laboratory using a conveyor belt. To facilitate tracking and directing a specimen to the appropriate workstation, the patent requires the steps of (1) marking a specimen container (e.g., a test tube) with a machine readable code and (2) marking the carrier (e.g., the stand that holds the test tube) with the **same** machine-readable code. In contrast, the accused Siemens StreamLAB system marks the specimen container with one code and embeds the carrier with a **different** code. Simply put, the patent requires the same code. The Siemens product uses different codes. The product therefore does not infringe – and it's just that easy, whether the claim is for literal infringement or infringement through the doctrine of equivalents.[1]

In support of their allegations, Plaintiffs have offered a convoluted theory of infringement under the doctrine of equivalents (DOE). The theory is that giving the carrier a different code which is associated or correlated with the code on the specimen container is somehow equivalent to giving the carrier the same code as the specimen container. But this theory is foreclosed as a matter of law by two separate legal bars: (1) prosecution history estoppel and (2) the disclosure-dedication rule, both of which mandate summary judgment. And even if not legally barred, Plaintiffs DOE theory is doomed for two additional reasons: (3) applying DOE in the above manner would impermissibly read out (and eliminate) the "same . . . code" limitation which appears in all the claims. Where the patent owner's DOE theory would require the court to ignore (or vitiate) a claim limitation, summary judgment of non-infringement is appropriate. Lastly, (4) Plaintiffs cannot possibly satisfy the traditional function/way/result or "insubstantial

[1] This Motion relates to only one of the two patents asserted in this case. For purposes of this motion, the Court need only determine the absence of the "same machine readable code" limitation to find non-infringement of the '670 patent as a matter of law. If necessary, Siemens expressly reserves its right to assert non-infringement based on the absence of other limitations of the asserted claims of the '670 patent.

differences" tests for infringement under DOE because StreamLAB does not perform in substantially the same way as the claimed invention. And StreamLAB's use of codes that are not the same is, in fact, the *opposite* of, the invention's use of the same code on both the container and carrier. Siemens therefore asks this Court for partial summary judgment that StreamLAB does not infringe the '670 patent.

II. FACTUAL BACKGROUND

This Factual Background provides context for the Statement of Undisputed Facts set forth in Section III below.

A. Each Claim of the '670 Patent Requires that the First Specimen Container and First Carrier be Marked with the Same Machine Readable Code

1. All Claims Require Marking the First Container and First Carrier with the Same Code

The '670 patent has only one independent claim which concerns a "method of automatically testing and tracking a specimen in a laboratory". [Declaration of Adaline J. Hilgard ("Hilgard Decl."), Exh. A, '670 patent, claim 1]. Independent claim 1 requires marking the first carrier "with the same machine readable code as [the] first container." [*Id.*] The code as well as the test information in the computer database relating to the specimen help direct and track the carrier (and specimen) along the conveyor to the appropriate workstations for testing. [*Id.*] The parties agree that (1) the "container" is the StreamLAB test tube and (2) the "carrier" is the StreamLAB puck that holds and transports the test tube. Claim 1 provides:

> [Claim] 1. A method of automatically testing and tracking a specimen in a laboratory, comprising the steps of:
>
> placing a first specimen to be tested into a first specimen container;
> marking the first container with a machine readable code;
> marking the first carrier for transporting the first container with the same machine readable code as said first container, and placing the container thereon . . . . [*Id.* claim 1].[2]

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[2] Claim 1, in its entirety states:

> A method of automatically testing and tracking a specimen in a laboratory, comprising the steps of:

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The remaining three claims of the '670 patent – claims 2-4 – are all dependent on claim 1, and thus include all of its elements. [*See id.*, claims 2-4]. Thus, to infringe any claim of the '670 patent, the first carrier and first container must be marked with "the **same machine readable code**." [*Id.*, claim 1 (emphasis added)].

2. The "Same . . . Code" Limitation Was Added During Prosecution in Response to the Examiner's Rejection Over Prior Art

The '670 patent is a simple patent that exists in a crowded field of prior art. During prosecution, the Examiner rejected broad application claims and the patent applicant abandoned an earlier parent application. The applicant eventually narrowed all the claims to obtain the patent. In particular, in response to an Examiner's rejection, the applicant added the "same

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placing a first specimen to be tested into a first specimen container;

marking the first container with a machine readable code;

marking the first carrier for transporting the first container with the same machine readable code as said first container, and placing the container thereon;

inputting information into a computer database relative to said first specimen, including information as to predetermined tests to be conducted on the specimen and the code marked on the container and carrier associated with the first specimen;

moving the first carrier on a conveyor among a plurality of work stations, said work stations adapted to conduct predetermined tests on specimens;

said computer tracking movement of said first carrier along said conveyor, and directing the movement of said first carrier according to information in the database regarding the first specimen, to predetermined work stations in a predetermined order to conduct predetermined tests;

inputting the results of tests conducted on said first specimen into said computer database;

said computer updating said database, with the first specimen test results, and directing movement of said first carrier to a different workstation of said plurality of workstations in response to said updated database; and

said computer directing movement of said first carrier to an archiving station for storage of said first specimen, upon completion of all predetermined tests indicated in the database for said first specimen. [*Id.*]

machine readable code" limitation to narrow its claims and achieve patentability.

Specifically, the original parent application did not contain the "same machine readable code" language. This original application[3] included a single independent claim – application claim 1 – followed by eight dependent claims. Application claim 1 generally recited placing a specimen in a container, placing the container in a carrier, placing the carrier on a conveyor and moving the specimen along the conveyer to be tested at a workstation. [Hilgard Decl., Exh. B, File History of U.S. Patent Application Serial No. 07/997,281 ("Parent FH") at SHD001353, Petition at 13]. Application claim 2 recited the "method of claim 1, further comprising the step of marking each of the specimen container and carrier with an identification code . . . ." [*Id.* Exh. B, Parent FH at SHD001354, Petition at 14 (emphasis added)]. Claim 2 thus required that the specimen container and carrier be marked with a code, but it did not require that they be marked with the same code (or with a "machine readable" code). [*Id.*]

About six months after the filing of the parent application, the patent Examiner rejected all of the original application claims as unpatentable over the prior art. [*Id.* Exh. B, Parent FH at SHD001432-38, First Rejection at 1-7]. With respect to claim 2, the Examiner essentially stated that applicant's unspecific claim of marking the container and carrier with "an identification code" was obvious in view of the prior art:

> Claim 2 is rejected under 35 U.S.C. §103 as being unpatentable over Okuno and Wakatake as applied to claim 1 above, and further in view of JP 1-301167 (Uchida). . . .
>
> Uchida teaches labeling both the specimen container and carrier.
>
> It would have been obvious to one of ordinary skill in the art at the time the invention was made to label both the specimen container and the carrier in the modified method of Okuno because labeling the carrier permits the analyzer to prioritize the order of processing of a particular sample as taught by Okuno and because maintaining specific identifying labels on specimens, e.g., patient identity, sampling date, etc., is essential to accurate record keeping and maintenance of samples in the field of automated medical or chemical analysis, as would have been recognized by one of ordinary skill in the art. [*Id*. Exh. B, Parent FH at SHD001435, First Rejection at 4].

[3] The original patent application was filed on December 23, 1992 and was given U.S. Patent Application Serial No. 07/997,281.

In response to the Examiner's rejection, the applicant amended its application, cancelling claim 2, rewriting claim 1 to include the broad marking step originally included in claim 2 and introducing the subject "same machine readable code" limitation in a new independent claim 10. [*Id*. Exh. B, Parent FH at SHD001445-48, First Amendment at 1-4]. Specifically, application claim 10, added in the applicant's first Amendment recited essentially the same language at the heart of this Motion:

> marking the first container with a machine readable code;
> marking a first carrier for transporting the first container with the **same** machine readable code as said first container, and placing the container thereon. [*Id*.. Exh. B, Parent FH at SHD001448, First Amendment at p. 4 (emphasis added)].

In the Remarks submitted with the first Amendment, the applicant conceded that claim 10 (and dependent claim 11) were more narrow in scope than application claim 1 with respect to the steps, including the marking steps, related to directing and tracking the specimen on the conveyor: "New claims 10 and 11 more specifically call for the method of directing and tracking the movement of the specimen carriers throughout the laboratory." [*Id.*, Exh. B, Parent FH at SHD001453, First Amendment at 9].

Thereafter, the Examiner again rejected all the claims, and the applicant later agreed to cancel amended claims 1, 4, 7 and 9 and prosecute only the more narrow claim 10 and claims dependent thereon. [*See id.* Exh. B, Parent FH at SHD001458, SHD001466-67, Second Rejection at p. 1, Second Amendment at p. 1, 2]. After additional Examiner rejections and a failed appeal to the Board of Patent Appeals and Interferences, the applicant abandoned the parent application and filed the continuation application that eventually issued as the '670 patent. [*See generally id.* Exh. B, Parent FH at SHD001469-1528; Exh. C, File History of the '670 patent ("'670 FH") at UNMC002771-2846]. Claim 1 of the '670 patent is essentially the amended claim 10 from the parent application, which recites the critical "same machine readable code" element.[4]

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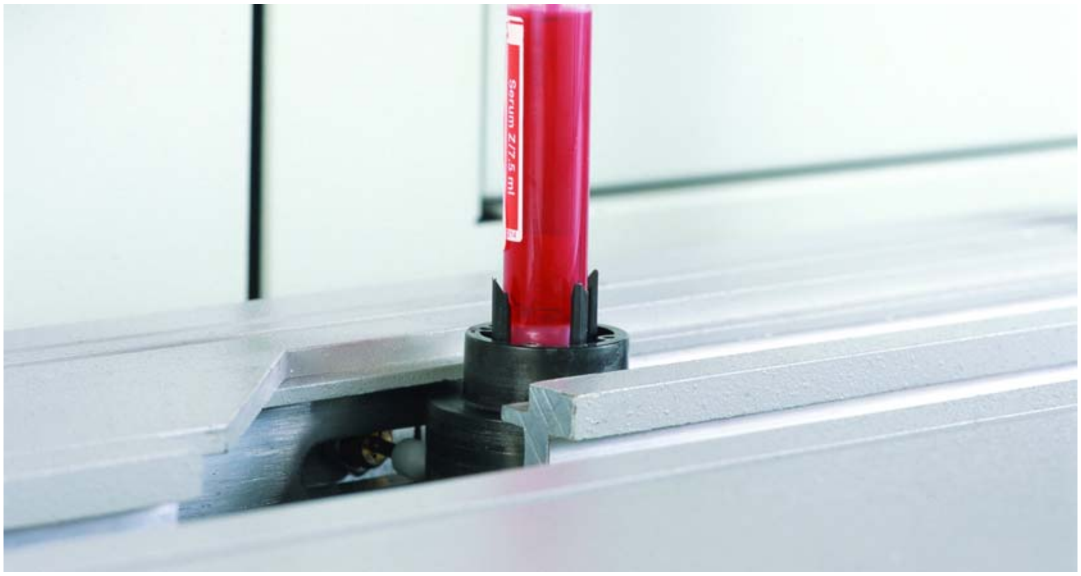
[4] The claims issued after further amendments immaterial to this Motion. [*See* Hilgard Dec. Exh.
Continued on following page

B. The Accused Device Does Not Use "the same machine readable code" on the Test Tube (Container) and Puck (Carrier)

Plaintiffs identify Siemens' test tube as the claimed "container" and Siemens' puck as the claimed "carrier". [Hilgard Decl. Exh. D, Plaintiffs' Preliminary Infringement Contentions ("PICs") at p. 6]. Siemens' test tube and puck are not marked with the same machine readable code. [Declaration of Kerry Miller ("Miller Decl.") ¶ 8].

Siemens' pucks have special features that are fundamental to the design and operation of StreamLAB. Each StreamLAB system includes a fixed number of pucks for a particular configuration that are not removable from the conveyor belt during normal operation. [*Id.* Decl. ¶ 5]. The pucks either park at various locations or continue to move around the conveyor system, whether or not they are transporting a test tube. [*Id.*] The same puck is thus used repeatedly to transport a number of different test tubes throughout the system at different times. The puck, which is integrated into the conveyor belt, is pictured below carrying a test tube:



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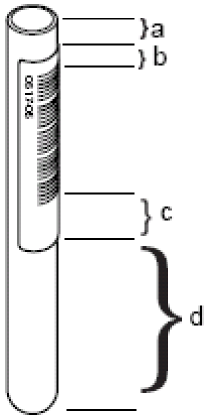
C, '670 FH at UNMC00002830-33, Amendment at p. 1-4 (explaining amendments to overcome Section 103 rejection relating to "retesting" and Section 112 rejection relating to "priority"); *see also id.* Exh. B, Parent FH at SHD001503-SHD001506, Board of Appeals Opinion at 4-7) (explaining Section 103 and 112 rejections)].

[*Id.*]

Each StreamLAB puck is embedded with a transponder RFID chip, which is given a unique, fixed ID number before the puck is integrated into the StreamLAB system.[5] [*Id.* ¶ 6, Exh. A at SHD000370]. This chip is not changed during the life of the puck. The RFID numbers used on the StreamLAB system typically consist of 3 or 4 digits, such as 325 or 4682. [*Id.*] Siemens' StreamLAB system tracks the puck by sending it a pulse of radio frequency, and the RFID chip responds by transmitting its identification number back to the system. [*Id.*] The puck transmits the same RFID number regardless of which test tube the puck may be holding and regardless of which barcode label may be affixed to that test tube. [*Id.*]

Each test tube in the StreamLAB system receives a barcode label that contains a barcode that is unique at a given point in time. The barcode label is specifically generated for a single specimen. [*Id.* ¶7]. After being used once on a test tube, the same barcode is not reused during the same time period for any test tube. [*Id.*] Barcode formats vary from lab to lab, generally consisting of between 8 and 15 characters and can be alphanumeric (in that both numbers and letters can be used). [*Id.*] Each barcode label is affixed to an individual test tube as follows:



Barcode Label Placement

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5 Siemens denies that embedding a chip in the puck meets the limitation of "marking" the carrier, as required by claim 1. For purposes of this motion, however, Siemens is focusing solely on the "same machine readable code" limitation and thus it is immaterial, and the Court need not consider, at this juncture, whether the "marking" limitation is met.

[*Id*. Exh. A].

RFID numbers and barcodes are different types of “machine readable codes”. Moreover, the RFID number a puck transmits is different from, and established without reference to, the test tube barcode. [*Id.* ¶ 8; Hilgard Decl. Exh. D, Plaintiffs’ PICs at p. 6]. StreamLAB might use a 4 digit RFID number (e.g., 3251) while a barcode may have a longer alphanumeric code (e.g., AC052098534). An RFID reader cannot read a barcode label, and a barcode reader cannot receive or read an RFID number. [Miller Decl. ¶ 8; *see id.* Exhs. A, B].

In the StreamLAB system, a technician places a barcode-labeled test tube into a rack and pushes the rack into the input/output module. A robot then picks up the test tube and places it into an empty puck on the conveyor track. A barcode reader scans the barcode and identifies the specimen to the computer. The computer then matches the identity to information, such as the tests to be performed, received from the laboratory information system. [*Id.* ¶ 9]. Antennas under the conveyor identify the puck in which the test tube is held based on the RFID number, and the computer associates the two different codes in a look-up table. [*Id.* ¶ 9, Exh. A at 370-71]. The computer and RFID receivers located along the conveyor belt then direct and track the puck as it transports the specimen on the conveyor. [*Id*.] Once a puck has begun to transport the test tube for analysis, the StreamLAB system does not again read the test tube barcode label unless the test tube is removed and put back into the same puck, or put into a different puck, for continued transport. [*Id.* ¶ 9].

The StreamLAB system is designed to take advantage of two different coding technologies and apply them to test tubes and pucks. Barcode labels were chosen for use on StreamLAB test tubes to achieve interoperability with existing hospitals and laboratory information systems that already utilized barcode technology to identify specimens. [*Id.* ¶ 10]. Barcodes are also appropriate for labeling test tubes because they are inexpensive, can be customized to encode specific information and can include both a machine readable and human readable portion. [*Id.* ¶ 10, Exh. B].

While barcoding is used on test tubes, RFID technology was chosen for StreamLAB pucks because the tracking system is self-contained and independent of any test tube labeling scheme. [*Id*. ¶ 11]. And because pucks merely hold and transport test tubes – and don't actually collect, contain or store specimens like test tubes – there also was no need for code customization or human readability, as in barcode labeling. [*Id*.] Siemens implemented RFID technology to achieve superior tracking reliability at a low cost. [*Id*.] RFID technology is substantially more reliable than barcodes. RFID readings are not as vulnerable to interference because RFID uses radio frequencies and transponders rather than optical readings of light and dark bars. [*Id*.] And because the RFID chip remains embedded in the puck at all times, there is little possibility for human error (i.e., by misapplying or damaging an exterior code label). [*Id*.] RFID coding also allows Siemens to control and pre-define the puck coding and numbering scheme as compared to barcode labeling, which is done by the StreamLAB user or medical professional. RFID readers (simple microprocessors) are also inexpensive when compared with quality barcode readers, which require a line of site between the barcode and barcode reader. Given the need to use many readers to reliably track pucks at various locations along the conveyor, RFID technology is the appropriate fit for coding pucks. [*Id*.] Accordingly, a fundamental design characteristic of the StreamLAB system is that it employs different codes, and different types of codes, on its test tubes and pucks. [*Id*.]

III. SEPARATE STATEMENT OF UNDISPUTED FACTS

This factual statement is provided under Local Rule 56.1. The Court may resolve this Motion by finding no infringement, literally or by equivalents, based solely on the following material undisputed material facts.

Parties, venue and jurisdiction: Pursuant to Local Rule 56.1(a)(2), Siemens identifies the following material undisputed facts:

1. According to the Complaint, the Plaintiff Board of Regents of the University of Nebraska ("the University") is a public corporate body organized and existing under the Constitution and laws of Nebraska with a principal place of business in Lincoln Nebraska.

[Complaint ¶ 1 (Docket No. 1)]. Plaintiff UneMed Corporation is a corporation organized under the laws of Nebraska with a principal place of business in Omaha, Nebraska. UneMed is an affiliate of the University. [*Id.* ¶ 2].

2. Siemens Healthcare Diagnostics, Inc. is a California corporation with its principal place of business in Deerfield, Illinois. [Amended Answer to Complaint and Amended Counterclaims, ¶ 3 (Docket No. 55)].

3. This is a patent infringement case arising under Title 35 of the United States Code Section 1, et al, and the parties agree that jurisdiction is appropriate under Title 28 of the United States Code Sections 1331 and 1338(a). [*Id.* ¶ 5]. The parties also agree that venue is appropriate in this judicial district under Title 28 of the United States Code Sections 1391 and 1400 and that Siemens is subject to personal jurisdiction in this district. [*Id.* ¶ 6].

No Literal Infringement: There are three material undisputed facts pertinent to no literal infringement:

4. Each claim of the '670 patent requires the step of marking the "first carrier for transporting the first container with the same machine readable code as said first container." [Hilgard Decl. Exh. A, '670 patent, claims 1-4].

5. In the accused StreamLAB system, each test tube is marked with a barcode label that is unique at a given point in time and generated specifically for the specimen contained in the test tube. [*Id.* Exh. D, Plaintiffs' PICs at p. 6; Miller Decl. ¶ 7].

6. In the accused StreamLAB system, the puck is embedded with a radio frequency identification (RFID) chip that transmits an identification number that is different than the barcode on any test tube that the puck is holding. [Hilgard Decl. Exh. D, Plaintiffs' PICs at p. 6; Miller Decl. ¶ 6, 8].

Prosecution History Estoppel Precludes Application of DOE: The following additional material undisputed fact establishes that prosecution history estoppel precludes Plaintiffs from asserting DOE:

7. Plaintiffs assert the StreamLAB system's "equivalent" of marking the first carrier

with the "same machine readable code as said first container" is "associat[ing] the RFID tag on a carrier (puck) with the barcode placed on the specimen container [test tube] . . . ." [Hilgard Decl. Exh. D, Plaintiffs' PICs at p. 6]. In response to the patent Examiner's Rejection over prior art during prosecution of the '670 patent, the patent applicant added new claims to its patent application that for the first time required the carrier to be marked with the "same machine readable code as said first container." [*Id*. Exh. B, Parent FH at SHD001353-54, (Petition at 13-14), SHD001435, (First Rejection at 4), SHD001445-48, SHD001450, SHD001454 (First Amendment at 1-4, 6, 9)]. The original claims merely required "marking each of the specimen container and carrier with an identification code," which encompassed the alleged equivalent of using different, but associated, codes. [*Id.* Exh. B, Parent FH at SHD001353-54]. However, the "same machine readable code" claim limitation is narrower and does not allow for different codes. [*Id.* Exh. B, Parent FH at SHD001445-46, SHD001450, SHD001453 (First Amendment at p. 1-2, 6, 9)]. The applicant was aware (and in fact Plaintiffs claim they have described in the body of the patent application) that different codes could be used and then correlated or associated with each other. [*Id.*; *see also id.*, Exh. A, '670 patent, at 3:47-49; Exh. B, Parent FH at SHD001347-48, Petition at p. 7-8]. However, in the end, the applicant claimed a narrower invention to secure its patent—i.e., the applicant added the "same … code" language to the claims. [*Id*. Exh A, '670 patent, claim 1; *see* Exh. B, Parent FH at SHD001453, First Amendment at p. 9].

The Disclosure-Dedication Rule Also Legally Bars Plaintiffs' DOE Theory: The following material undisputed facts bar Plaintiffs' DOE theory as a matter of law:

8. The specification of the '670 patent states:

> At the specimen receiving station, the carrier is given an identification code which correlates with the specimen container, so that the container and carriage may be directed throughout the laboratory automation system . . . .[Hilgard Decl. Exh. A, '670 patent at 3:47-51].

Thus, a person of ordinary skill in the art reading the patent specification would understand that the first carrier could be given a code that is correlated with the specimen container. [*Id.*]

9. Instead of reciting the step of marking the first carrier with a code that is "correlated" with the first container, as disclosed in the patent specification, claim 1 recites marking the first carrier "with the same machine readable code as said first container." [*Id.* at claim 1].

Even if Not Legally Barred From Asserting DOE, Plaintiffs' DOE Theory Would Impermissibly Vitiate the "Same . . . Code" Limitation: Material Undisputed Fact Numbers 4, 5 and 6 above establish that Plaintiffs' DOE theory would impermissibly result in claim vitiation, mandating partial summary judgment.

Even Without Applying Legal Bars or Claim Vitiation, Plaintiffs DOE Theory Cannot Prevail: The following material undisputed facts establish that no infringement exists under the doctrine of equivalents, even if there is no estoppel, public dedication or claim vitiation that defeats Plaintiffs' theory:

10. By using different but allegedly "associated" or correlated codes on the test tube and puck, StreamLAB operates in way that is not substantially the same as using the "same code" claimed in the '670 patent because it exploits the differences between two codes, and types of codes, to properly route test tubes and pucks in the automated system. [Miller Decl. ¶10-13].

11. Using a different RFID code on the puck and then attempting to associate that code with different code on the test tube, such as a barcode, is also a substantially different way of operating because it eliminates the need, under the claimed method, for a technician (or machine) to handle, manage, code and/or re-code a puck each time the puck carries a new test tube and specimen. [*Id.* ¶ 14].

12. Unlike the claimed method in which a single container must be transported by a single carrier that shares its same code throughout the process, test tubes in the StreamLAB system can be placed in different pucks, with different RFID numbers, during the process. [*Id.* ¶¶ 15, 16]. This can occur because receiving an RFID number in a puck, unlike reading the "same code" applied to the carrier in the claimed method, does not directly access the identity of the specimen. [*Id.* ¶ 15; Hilgard Decl. Exh. A, 670 patent, claim 1]. Because the code on the

puck is independent from the code on the test tube, the puck can be integrated into the conveyor and re-used without changing its RFID number regardless of the number of test tubes carried. [Miller Decl. ¶¶ 5, 15]. This increases efficiency, maximizes throughput, conserves resources and reduces the possibility of human or machine error (in handling and re-coding the pucks). [*Id.* ¶15]. The interchangeability of pucks and test tubes – permitted by the use of different codes (and precluded by the use of the "same . . . code") – is fundamentally different from the mono-code approach of the '670 patent, which requires a container and carrier to remain together (or if separated, to re-unite) during the process. [Hilgard Decl., Exh. A, '670 patent, at 3:47-54].

IV. LEGAL ANALYSIS

A. Summary Judgment Standard

Summary judgment is proper when there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986); *Nike Inc. v. Wolverine World Wide, Inc.*, 43 F.3d 644 (Fed. Cir. 1994). A fact will only be considered genuinely disputed "if the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986).

A patent infringement analysis involves two steps: "First, the claim must be properly construed to determine its scope and meaning. Second, the claim as properly construed must be compared to the accused device or process." *PC Connector Solutions LLC v. SmartDisk Corp.*, 406 F.3d 1359, 1362 (Fed. Cir. 2005). Infringement may be found only where the accused product or process contains each limitation of the claim, either literally or under the doctrine of equivalents. *Deering Precision Instruments, L.L.C. v. Vector Distribution Sys., Inc.*, 347 F.3d 1314, 1324 (Fed. Cir. 2003). If even a single claim element is absent in the accused product there can be no infringement as a matter of law. *Young Dental Mfg. Co. v. Q3 Special Prods., Inc.*, 112 F.3d 1137, 1143 (Fed. Cir. 1997) (there can be no infringement if accused product "lacks entirely a necessary element of the claim or structural equivalent thereof"); *Bai v. L & L Wings, Inc.*, 160 F.3d 1350, 1354 (Fed. Cir. 1998) (affirming summary judgment of non-infringement where single limitation was not met).

Plaintiffs bear "the burden of proving infringement by a preponderance of the evidence." *Morton Intl, Inc. v. Cardinal Chem. Co.*, 5 F.3d 1464, 1468 (Fed. Cir. 1993). Thus, Siemens "is entitled to summary judgment [of] non-infringement, by pointing out that [Plaintiffs] failed to put forth evidence to support a finding that a limitation of the asserted claim[s] was met . . . in the accused devices." *Johnston v. IVAC Corp.*, 885 F.2d 1574, 1578 (Fed. Cir. 1989).

B. The Term "Same" Should be Given Its Ordinary and Customary Meaning

The first step of any non-infringement analysis is claim construction, which is a question of law appropriately determined on summary judgment. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996); *see also PC Connector*, 406 F.3d at 1362-64 (affirming summary judgment of non-infringement where district court, on summary judgment motion, construed claim terms as having ordinary meaning); *Sliptrack Systems v. Steeler Metal, Inc.*, 2004 WL 2323935 at *3 and n. 2 (N.D. Cal. 2004) (granting summary judgment of non-infringement after analysis of single dispositive term). "It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*). As such, "the claims themselves provide substantial guidance as to the meaning of particular claim terms." *Id.* at 1314. Claim terms are generally given their ordinary and customary meaning to one of skill in the relevant art at the time of invention. *Id* .at 1312-13 (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Worldwide Innovations & Technologies, Inc. v. Microtek Medical, Inc.*, 2007 WL 2727231 * 2-3 (N.D. Miss. 2007) (granting summary judgment of non-infringement where claim term had ordinary and customary meaning).[6]

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[6] The ordinary and customary meaning is determined by reference to the "intrinsic evidence", i.e., the patent itself, including the claims, specification, and prosecution history. *Vitronics Corp.*, 90 F.3d at 1583; *Worldwide*, 2007 WL 2727231 at *2 and n.1 (claim term given ordinary meaning; summary judgment of non-infringement). "[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim

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The only word at issue is "same," which requires no particularized construction and should simply be given its ordinary and customary meaning. *PC Connector*, 406 F.3d at 1362-64 (affirming summary judgment where court determined non-infringement based on ordinary meaning of claim terms); *Worldwide*, 2007 WL 2727231 at *2-3 (granting summary judgment of non-infringement where claim term given ordinary meaning). The term "same" means just what one would expect it to mean. There is no rule of claim construction that can redefine the term to mean different or not the same. The intrinsic evidence – the claims, specification and prosecution history – provide no basis for deviating from the plain meaning of the word. *See PC Connector*, 406 F.3d at 1363 (terms "normally," "conventional" and "standard" are "governed by their ordinary and customary meanings" where "nothing in the written description . . . amounts to a clear attempt by the patentee to impart any special meaning"). The applicant provided no particularized or special meaning in the specification. [*See* Hilgard Decl. Exh. A, '670 patent].

Moreover, during prosecution of the parent application, the applicant purposefully added the phrase "same machine readable code" to "more specifically call for the method of directing and tracking the movement of the specimen carriers throughout the laboratory." [*Id*. Exh. B, Parent FH at SHD001453, First Amendment at 9]**.** The applicant thus made clear that this limitation effectively narrowed the previous, broader claim language that did not require the code on the carrier and container to be the same. And the applicant later cancelled or abandoned all of the claims that contained the broader marking limitation in favor of the narrower limitation. [*See id.*, Exh. B, Parent FH at SHD001465, Second Amendment at p. 1; Exh. C, '670 FH at UNMC002783-85, Petition at p. 10-12]. *See Biovail Corp. International v. Andrx Pharmaceuticals*, 239 F.3d 1297, 1301 (Fed. Cir. 2001) (file history of parent application applies to continuation patent); *Goldenberg v. Cytogen*, 373 F.3d 1158, 1167 (Fed. Cir. 2004)

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scope narrower than it would otherwise be." *Phillips*, 415 F.3d at 1317 (citing *Vitronics*, 90 F.3d at 1582-83).

(prosecution history of the parent application is treated "as part of the intrinsic evidence" of the child application when construing claim terms); *Advanceme, Inc. v. Rapidpay, LLC*, 2006 WL 3761975 at *4 (E.D. Tex. 2006) ("the prosecution history of a parent patent is part of the prosecution history of the child patent").

During prosecution of the parent application, the Board of Patent Appeals and Interferences also recited this narrower marking limitation when describing its understanding of the subject matter being claimed, stating that the claims were "directed to a method of automatically testing and tracking a specimen in a laboratory wherein the specimen is placed in a container marked with a machine readable code, the container with the specimen placed on a carrier marked with the same machine readable code, and the carrier with the container and specimen moved on a conveyer . . . ." [*Id*. Exh. B, Parent FH at SHD001501, Opinion at 2].

StreamLAB system does not use even the same type of code – much less the same code – on its test tubes and carriers. To avoid summary judgment, Plaintiffs must take the position that "same" means "not the same." In this lawsuit, Plaintiffs have twice proposed to read out (and ignore) the "same" code patent limitation altogether. First, the Plaintiffs' Preliminary Infringement Contentions failed to articulate with any specificity how this element is met, instead asserting that the StreamLAB system meets the limitation simply by having a computer "associate[] an RFID tag on a carrier (puck) with the barcode placed on the specimen container . . . ." [Hilgard Decl. Exh. D, Plaintiffs' PICs at p. 6 (emphasis added)]. Plaintiffs' contentions are telling for two reasons: (1) by attempting to read the claims literally on StreamLAB, Plaintiffs clearly intend to ignore the "same" limitation in the patent, and (2) notwithstanding Plaintiffs' unsupportable reading of the patent, Plaintiffs' Contentions actually *confirm* the undisputed fact that StreamLAB operates by using different codes on its puck and test tube.

Next, in their preliminary proposed claim constructions, Plaintiffs again ignore the "same machine readable code" limitation,[7] offering instead a tortured construction that merely requires

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[7] This limitation likely means not only same code number, but also same type of code (readable by the same machine). Regardless, StreamLAB does not infringe because it is undisputed that

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"a machine readable code that is correlated with the machine readable code on the first container." [*Id*. Exh. E, at p. 1 (emphasis added); *see also* Joint Claim Construction Statement at p. 5 (Docket No. 64)]. At bottom, Plaintiffs are attempting to contradict the plain language of the claims by rewriting them to allow a "correlation" or "association" between two different codes, whereas the '670 patent expressly requires that the same code be used.[8]

This issue can and should be determined without a *Markman* hearing for at least three reasons. First, a full-blown claim construction hearing is not required to construe the non-technical term "same" because it should be given its ordinary, plain meaning, which cannot ever mean "different." *See PC Connector*, 406 F.3d at 1363-65 (affirming summary judgment of non-infringement where lower court construed patent terms in summary judgment context without a Markman hearing; terms given customary meaning); *Worldwide*, 2007 WL 2727231 at *2-3 (claim term had ordinary meaning; granting summary judgment of non-infringement without claim construction hearing).

Second, it is undisputed that the StreamLAB system uses different codes and types of codes on its test tube and puck, and thus there is no need to consider any other element of the asserted claims of the '670 patent to find non-infringement. *See Sliptrack Systems*, 2004 WL 2323935 at *3, n.2 (rejecting patentee's argument that court should conduct Markman hearing before ruling on summary judgment motion; single claim term was dispositive; granting motion).

Third, determining non-infringement at this juncture, in advance of the *Markman* hearing,

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StreamLAB uses different code numbers and types of codes on the puck and test tube.

[8] Plaintiffs' assertion is particularly disingenuous given that the inventor of the '670 patent, Rodney Markin, was well aware at the time of prosecution of the difference between "associating" different codes, on the one hand, and using the "same" code on the other. During prosecution of the '670 patent, Markin filed an application which issued as U.S. Patent No. 5,589,137 ("the '137 patent"). [Hilgard Decl. Exh. F]. The '137 patent claims a carrier that includes a label "having identification indicia thereon relating to a specimen *associated* with the carrier." [*Id*. at claims 8, 9 (emphasis added)]. In contrast, in the '670 patent, Markin specifically required more than a mere "association" or correlation – he required that the carrier be marked with the "same machine readable code as used on the first said container." [*Id*. Exh. A, claim 1]. The applicant was perfectly aware of what he was, and was not, claiming.

would conserve judicial and party resources by obviating the need for any tutorial, *Markman* hearing or further litigation concerning the '670 patent.[9]

C. StreamLAB Does Not Practice, Literally or by Equivalents, the Step of Marking the Carrier with the Same Machine Readable Code As the Container

After claim construction, the second step of the infringement analysis compares the claim to the accused device. *See PC Connector*, 406 F.3d at 1362.

1. There is No Literal Infringement as StreamLAB uses Different Codes

"Literal infringement requires that the accused device contain each limitation of the claim exactly; any deviation from the claim precludes a finding of literal infringement." *Litton Sys., Inc. v. Honeywell, Inc.*, 140 F.3d 1449, 1454 (Fed. Cir. 1998) . Where, as here, a claim element is not met exactly in the accused product, summary judgment of no infringement is appropriate. *Young*, 112 F.3d at 1143 (affirming summary judgment of no infringement where claim element not met in accused device).

In the StreamLAB system, the barcode on the test tube is different from – not the same as – the number transmitted by the RFID chip in the puck transporting the test tube. [Miller Decl. ¶8; Hilgard Decl. Exh. D, PICs at p. 6]. Thus, the StreamLAB system does not literally infringe the claims of the '670 patent because it does not include the step of marking a puck (the accused carrier) with the "same machine readable code" as the test tube (the accused first container). [Miller Decl. ¶¶6-8; Hilgard Decl. Exh. A, claim 1; Exh. D, PICs, at p. 6]. Summary judgment of no literal infringement is mandated.

2. Plaintiffs are Estopped from Arguing, and Cannot Otherwise Establish, Infringement under the Doctrine of Equivalents (DOE)

Under the doctrine of equivalents, "a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is 'equivalence' between the elements of the accused product or process and the claimed elements of the patented invention." *Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 21 (1997). The doctrine, however, is often not available to a plaintiff as an infringement theory, and even when it is available, infringement under DOE often cannot be established. As the Supreme Court recently stated:

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[9] Moreover, Plaintiffs had notice that Siemens would likely bring this early Motion for Partial Summary Judgment of Non-infringement of the '670 patent. [*See* Report of Parties' Rule 26(f) Conference, dated Dec. 8, 2009 (Docket No. 31)].

> [I]f prosecution history estoppel would apply or if a theory of equivalence would entirely vitiate a particular claim element, partial or complete summary judgment should be rendered by the court, as there would be no further material issue for the jury to resolve. *Id.* at 39, n. 8.

Here, as a matter of law, the doctrine is neither available to Plaintiffs, nor can Plaintiffs establish infringement under DOE for four reasons.

a. Plaintiffs are Estopped From Asserting DOE Infringement

First, the doctrine of prosecution history estoppel prevents Plaintiffs from seeking to recapture as an equivalent subject matter surrendered during prosecution. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabusaki Co., Ltd*., 493 F.3d 1368, 1377 (Fed. Cir. 2007); *see Trading Technologies Int'l., Inc. v. eSpeed, Inc.*, 595 F.3d 1340, 1348-49, 1356-57 (Fed. Cir. 2010) (affirming summary judgment of no infringement under DOE based on prosecution history estoppel). Specifically, prosecution history estoppel bars the patentee "from asserting equivalents if the scope of the claims has been narrowed by amendment during prosecution." *Honeywell Int'l, Inc. v. Hamilton Sundstrand Corp.*, 370 F.3d 1131, 1139 (Fed. Cir. 2004) (en banc). Amendment-based prosecution history estoppel "arises when an amendment is made to secure the patent and the amendment narrows the patent's scope." *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722, 736 (2002) (hereinafter "*Festo VIII*"). "A patentee's decision to narrow his claims through amendment may be presumed to be a general disclaimer of the territory between the original claim and the amended claim." *Id.* at 740. Thus, estoppel that prevents application of the doctrine of equivalents arises where, as here, (1) there was a narrowing amendment during prosecution that surrendered subject matter; (2) the narrowing amendment was made for reasons of patentability; and (3) the alleged equivalent falls within the scope of the surrendered subject matter, taking into account the presumption of total surrender for the limitation.[10] *Id.* Where the prosecution history is silent on the rationale for the narrowing amendment, it is presumed to be made for reasons of patentability. *Id.* The Court determines application of prosecution history estoppel as a matter of law. *Id.*

Here, Plaintiffs are precluded from asserting DOE to recapture the use of a different, but associated or correlated, code on the carrier because the applicant, in response to the patent Examiner's rejections, amended and narrowed his claims during prosecution to require the narrow "same machine readable code" limitation in each claim of the '670 patent. In the original patent application, the claims were broad and included dependent claim 2 that described the generalized step of "marking each of the specimen container and carrier with an identification code." [Hilgard Decl. Exh. B, Parent FH at SHD001353-54, Petition at 13-14; *see also id.* at SHD001347-48, Petition at 7-8]. This step did not require that the codes be the same. The Examiner rejected the original claims, including claim 2, on the basis that they were unpatentable over the prior art, noting specifically that it would have been obvious to one of skill in the art "to label both the specimen container and the carrier . . . ." [*Id.* Exh. B, Parent FH at SHD001435, First Rejection at 4]. In response, the applicant cancelled and/or amended his original claims and added new claims (10 and 11) narrowly drafted to require that the carrier be marked with the "same machine readable code as first said container." [*Id*. Exh. B, Parent FH, at SHD001445-49, First Amendment at 1-5].

It is uncontroverted, and the applicant admitted during prosecution, that the amendment

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10 The Supreme Court further explained the reason that prosecution history estoppel limits application of DOE as follows:

> Prosecution history estoppel ensures that the doctrine of equivalents remains tied to its underlying purpose. Where the original application once embraced the purported equivalent but the patentee narrowed his claims to obtain the patent or to protect its validity, the patentee cannot assert that he lacked the words to describe the subject matter in question. The doctrine of equivalents is premised on language's inability to capture the essence of innovation, but a prior application describing the precise element at issue undercuts that premise. In that instance the prosecution history has established that the inventor turned his attention to the subject matter in question, knew the words for both the broader and narrower claim, and affirmatively chose the latter.

Festo, 535 U.S. at 734-35.

adding this language was to "*more specifically* call for the method of directing and tracking the movement of the specimen carriers throughout the laboratory." [*Id*. Exh. B, Parent FH at SHD001453, First Amendment at 9 (emphasis added)]. In other words, the invention tracks and directs the carrier *specifically* by, among other things, using the same code on both the carrier and the container. [*Id.* Exh. A, '670 patent, claim 1]. In later amendments, the applicant responded to the Examiner's repeated rejections by cancelling all claims that contained the broader marking limitation and prosecuting only claims that included the narrower step of marking the first carrier with the "same machine readable code as said first container."[11] [*See id.* Exh. B, Parent FH at SHD001466-67, Second Amendment at p. 1-2, Exh. C, '670 FH at UNMC002783-85, Petition at p. 10-12]. These claims (revised in immaterial ways) ultimately issued in the '670 patent. The applicant's amendments and associated remarks show, and create a presumption, that applicant narrowed the claims for patentability reasons, giving rise to prosecution history estoppel. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 344 F.3d 1359, 1366-67 (Fed. Cir. 2003), *citing Festo VIII,* 535 U.S. at 740.

A presumption also exists that the applicant surrendered the territory between the broader limitation (which would have permitted marking the carrier with a different but correlated or associated code) and the more narrow same code limitation that ultimately issued.[12] *Id. citing Festo VIII*, 535 U.S. at 740; *see Deering,* 347 F.3d at 1325 ("when the patentee originally claimed the subject matter alleged to infringe but then narrowed the claim in response to a

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11 *See Biovail*, 239 F.3d at 1301 (file history of parent application applies to continuation patent); *Advanceme*, 2006 WL 3761975 at *4 ("the prosecution history of a parent patent is part of the prosecution history of the child patent").

12 Notably, it is immaterial that the Examiner continued to reject the applicant's claims after the narrowing amendment because "[i]t is the patentee's response to a rejection-not the examiner's ultimate allowance of a claim-that gives rise to prosecution history estoppel." *Felix v. American Honda Motor Co., Inc.*, 562 F.3d 1167, 1182-83 (Fed. Cir. 2009) ("The fact that the first amendment did not succeed and that a further amendment was required to place the claim in allowable form, however, is of no consequence as to the estoppel."), *citing Festo,* 535 U.S. at 727, 740 ("When the patentee ***responds*** to the rejection by narrowing his claims, this prosecution history estops him from later arguing that the subject matter covered by the original, broader claim was nothing more than an equivalent." (emphasis added)).

rejection, 'courts may presume the amended text was composed with awareness of this rule and that the territory surrendered is not an equivalent of the territory claimed'" (citation omitted)). The alleged "equivalent" now apparently asserted by Plaintiffs – marking the carrier with different code that is "associated" or "correlated" with the code on the specimen container – squarely falls within the scope of the subject matter the applicant surrendered when he cancelled the broader claims in favor of the more narrow claims. As a matter of law, Plaintiffs cannot assert the doctrine of equivalents to recapture territory surrendered during prosecution, and summary judgment of no infringement under DOE is appropriate. *Trading Technologies*, 595 F.3d at 1357 (affirming summary judgment of no infringement under DOE where inventor narrowed claims and could not recapture surrendered subject matter to cover accused device).

Plaintiffs cannot overcome the presumption that they surrendered the use of different, "associated" or "correlated" codes during prosecution. To overcome the presumption, it is well-settled that "[t]he patentee must show that at the time of the amendment one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent." *Festo*, 535 U.S. at 741. To do so, Plaintiffs would have to show that "[t]he equivalent [was] unforeseeable at the time of the application; the rationale underlying the amendment [bears] no more than a tangential relation to the equivalent in question; or there [was] some other reason suggesting that the patentee could not reasonably be expected to have described the insubstantial substitute in question." *Id.* at 740-41.

Here, the equivalent asserted by Plaintiffs was foreseeable at the time of the amendment because, among other things, the '670 patent specification, which remained unchanged throughout prosecution of the parent and continuation applications, disclosed this alleged equivalent. The specification states:

> At the specimen receiving station, the carrier is given an identification code which correlates with the specimen container, so that the container and carriage may be directed throughout the laboratory automation system . . . ." [Hilgard Decl. Exh. A, '670 patent at 3:47-51].

Thus, one skilled in the art – and especially the inventor, Rodney Markin – could reasonably be "expected to have drafted a claim that would have literally encompassed" the use of different, but correlated or associated codes.[13] *Festo VIII*, 535 U.S. at 741. Because the applicant clearly was aware of the alleged equivalent, he was "expected to properly claim the proposed equivalent at the time of amendment" in order to satisfy the public notice function of patents. *Festo*, 493 F.3d at 1378. Surrender of alleged equivalent is "appropriate [because] 'the inventor turned his attention to the subject matter in question, knew the words for both the broader and narrower claim, and affirmatively chose the latter.'" *Id*. at 1381-82, *citing Festo VIII*, 535 U.S. at 734-35.

Likewise, there is nothing in the prosecution history to suggest that the reason for the narrowing marking limitation was tangentially related to the alleged equivalent. *Festo*, 344 F.3d at 1369, 1371 (clarifying that the "tangential relation" prong of the presumption rebuttal test is a question of law that "focuses on the patentee's objectively apparent reason for the narrowing amendment," which should be "discernable from the prosecution history record"). And there is no other "apparent reason suggesting that the patentee could not reasonably be expected to have described the [alleged] insubstantial substitute in question." *Id.* (finding that patentee failed to overcome the presumption of surrender resulting from narrowing amendment). Thus, prosecution history estoppel precludes Plaintiffs from presenting their DOE infringement theory, and partial summary judgment is appropriate.

b. Even if Prosecution History Estoppel does not Apply, the Disclosure – Dedication Rule Bars Plaintiffs' DOE theory.

"The disclosure-dedication rule limits application of the doctrine of equivalents, much in the same way as prosecution history estoppel." *Toro Co. v. White Consolidated Industries, Inc.*, 383 F.3d 1326, 1331-34 (Fed. Cir. 2004) (*en banc*) (affirming summary judgment of non-infringement under rule). The rule provides that:

> [W]hen a patent drafter discloses but declines to claim subject matter . . . this

[13] This is what the Plaintiffs state the "same code" limitation means because it is their construction of the term.

> action dedicates that unclaimed subject matter to the public. Application of the doctrine of equivalents to recapture subject matter deliberately left unclaimed would conflict with the primacy of the claims in defining the scope of the patentee's exclusive right.

Johnson & Johnston Associates Inc. v. R.E. Service Co., Inc. 285 F.3d 1046, 1054-55 (Fed. Cir. 2002) (citations and quotations omitted) (where specification disclosed that "other metals, such as stainless steel or nickel alloys, may be used," but claims recited only aluminum, patentee could not invoke DOE to recapture the use of steel). The disclosure-dedication rule bars DOE where, as here, "one of ordinary skill in the art can understand the unclaimed disclosed teaching upon reading the written description" within the patent. *PSC Computer Prods., Inc. v. Foxconn Int'l, Inc.*, 355 F.3d 1353, 1360 (Fed. Cir. 2004) (affirming summary judgment of non-infringement under DOE where accused device used plastic parts, specification disclosed using resilient materials, including plastic, but claims recited only metal parts); *Toro*, 383 F.3d at 1334.

The Federal Circuit has emphasized that the disclosure-dedication rule is critical to uphold the public notice function of patents:

> The ability to discern both what has been disclosed and what has been claimed is the essence of public notice. It tells the public which products or processes would infringe the patent and which would not. Were the patentee allowed to reclaim some specifically-disclosed-but-unclaimed matter under the doctrine of equivalents, the public would have no way of knowing which disclosed matter infringed and which did not. . . . Such a reclamation would eviscerate the public notice function of patents and create uncertainty in the law.

PSC Computer, 355 F.3d at 1360 (citations omitted). The rule is also ensures that "a patentee cannot narrowly claim an invention to avoid prosecution scrutiny by the PTO, and then, after patent issuance, use the doctrine of equivalents to establish infringement because the specification discloses equivalents." *Johnson*, 285 F.3d at 1054-55 ("Such a result would merely encourage a patent applicant to present a broad disclosure in the specification of the application and file narrow claims, avoiding examination of broader claims that the applicant could have filed consistent with the specification.").

Application of the disclosure-dedication rule is a question of law. *See Toro*, 383 F.3d at 1331 (affirming summary judgment of non-infringement); *PSC Computer*, 355 F.3d at 1359-60 (same); *Roden v. Krone Niemeyer Co.*, 2005 WL 1629893 at *3-4, *6-7 (E.D. Wis. 2005) (granting summary judgment where disclosure-dedication rule precluded DOE theory); *Sliptrack Systems*, 2004 WL 2323935 at *9-10 (granting summary judgment under rule where patent disclosed, but did not claim, a particular embodiment of the invention).

Here, the disclosure-dedication rule forecloses Plaintiffs' DOE theory as a matter of law because the '670 patent specification discloses giving the carrier a code that correlates with the specimen container. Indeed, the '670 patent specification states that ". . . the carrier is given an *identification code which correlates with the specimen container*, so that the container and carrier may be directed throughout the laboratory automation system . . . ." [Hilgard Decl. Exh. A, '670 patent at 3:47-51]. Claim 1, however, does not recite marking the carrier with a code that correlates with the specimen container, but instead recites marking the first carrier with the "same machine readable code as said first container." [*Id.* claim 1]. Thus, claim 1 put the public on notice that marking the first carrier with the same code as the container would infringe, but the patent's written description disclosed an unclaimed alternative in which the carrier is given a code that merely correlates with the specimen container. As a matter of law, therefore, the step of giving the first carrier a code that correlates with the specimen container was dedicated to the public. And Plaintiffs cannot now invoke DOE to extend the "same . . . code" limitation to capture giving the carrier a code that is different than, but correlates or associates with, the code on the container. To hold otherwise would eviscerate the public notice function of patents and encourage patentees to broadly disclose, but narrowly claim, their inventions to avoid PTO scrutiny of broad claims. *See Johnson*, 285 F.3d at 1054-55; *PSC Computer*, 355 F.3d at 1360.

c. Even if Plaintiffs are not Legally Estopped and Barred from arguing DOE, DOE Cannot Apply Since it would Impermissibly Vitiate the "same machine readable code" Element

Even if Plaintiffs were not precluded from asserting DOE, summary judgment of no infringement under DOE is appropriate because holding otherwise would impermissibly vitiate the "same machine readable code" limitation. *Trading Technologies*, 595 F.3d at 1355 (affirming summary judgment; patentee may not assert "a theory of equivalen[ce] [that] would entirely vitiate a particular claim element" (internal quotations omitted)). Specifically, DOE cannot be applied too broadly so as to "effectively eliminate [a claim] element in its entirety." *Warner-Jenkinson,* 520 U.S. at 29; *Carnegie Mellon Univ. v. Hoffmann-La Roche, Inc.,* 541 F.3d 1115, 1129 (Fed. Cir. 2008) (affirming summary judgment of no DOE infringement where its application would vitiate claim limitation). The all-elements rule requires the court to consider "the totality of circumstances of each case and determine whether the alleged equivalent can be fairly characterized as an insubstantial change from the claimed subject matter without rendering the pertinent limitation meaningless." *Trading Technologies*, 595 F.3d at 1355, *quoting Freedman Seating Co. v. Am. Seating Co.*, 420 F.3d 1350, 1359 (Fed. Cir. 2005). Claim vitiation is a question of law that applies to defeat infringement under the doctrine of equivalents where, as here, there is a "clear, substantial difference or a difference in kind" between the claim limitation and the accused product. *Id*., *quoting Freedman Seating*, 420 F.3d at 1360.

In this case, giving a test tube and puck codes that are not the same cannot be equivalent to giving them the same code unless the word "same" is meaningless. In other words, if the patent covers the use of machine readable codes that are the same, as well as machine readable codes that are not the same, then it merely covers the use of "machine readable codes", and the "same" limitation is impermissibly vitiated. *See SciMed Life Sys. v. Advanced Cardiovascular Sys*., 242 F.3d 1337, 1347 (Fed. Cir. 2001) ("[I]f a patent states that the claimed device must be 'non-metallic,' the patentee cannot assert the patent against a metallic device on the ground that a metallic device is equivalent to a non-metallic device."). Thus, summary judgment of non-infringement is appropriate. *See id.; Trading Technologies*, 595 F.3d at 1355-56 (affirming summary judgment; occasional automatic re-centering in the accused product is not equivalent to claim limitation requiring "never chang[ing] positions unless by manual re-centering" because otherwise claim limitation is rendered meaningless); *Carnegie Mellon*, 541 F.3d at 1129 (summary judgment appropriate where theory of equivalents would vitiate claim element).

d. Plaintiffs Cannot Satisfy The Function/Way/Result or Insubstantial Differences Test

As set forth above, the Court need not reach any actual DOE infringement test due to the two legal bars against DOE as well as claim vitiation. But, even if the Court reaches the two standard DOE tests, summary judgment is still appropriate. Although determining infringement under DOE is a question of fact, summary judgment of no infringement is nevertheless appropriate where, as here, Plaintiffs cannot point to any genuine issue of disputed fact that would support a finding of infringement under DOE. *General Electric Co. v. Nintendo Co.*, 179 F.3d 1350, 1353 (Fed. Cir. 1999); *see Clearwater Systems Corp. v. Evapco, Inc.*, 596 F.Supp.2d 291, 307-08 (D. Conn. 2009) (granting summary judgment of no DOE infringement based on function/way/result test and claim vitiation).

1. The Function/Way/Result Test Cannot Be Met Since The "Way" Prong Is Not Met

Summary judgment of non-infringement is appropriate where, as here, the plaintiffs cannot show, as to the claim element in question, that the accused product performs substantially the same function in substantially the same way with substantially the same result. *Wavetronix LLC v. EIS Electronic Integrated Systems,* 573 F.3d 1343, 1345 (Fed. Cir. 2009); *Schoell v. Regal Marine Indus., Inc.*, 247 F.3d 1202, 1209-10 (Fed. Cir. 2001); *see Warner-Jenkinson*, 520 U.S. at 39-40; *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.,* 339 U.S. 605, 609 (1950). An accused device does not infringe a claim under DOE if, as to any claim element, it performs a similar function and achieves a similar result but does not operate in substantially the same way. *See Wavetronix*, 573 F.3d at 1315 (affirming summary judgment of no DOE where accused product performed same function and achieved same result but operated in a substantially different way than claimed method); *Slimfold Manufacturing v. Kinkead Industries*, 932 F.2d 1453, 1457 (Fed. Cir. 1991) (reversing infringement under DOE where accused device performed same function and achieved the same result, but did not operate in substantially the same way); *Senior Industries, Inc. v. Thomas & Betts Corp.*, 2002 WL 31180745 at *4-5, 6 (N.D. Ill. 2002) (granting summary judgment of no DOE infringement where accused product was designed to perform same function in different way).

Here, the StreamLAB system does not operate in substantially the same way as the claimed method's step of marking the carrier with "same machine readable code" as the first container. As set forth above, Plaintiffs assert that the alleged StreamLAB "equivalent" of this step is "associat[ing] the RFID tag on a carrier (puck) with the barcode placed on the specimen container [test tube] . . . ." [Hilgard Decl. Exh. D, Plaintiffs' PICs at p. 6]. But, the uncontroverted facts establish that giving the first carrier a different code that associates with the code on the first container codes is a substantially different way of operating than giving it the "same . . . code" for at least three reasons.

First, the claimed method's use of the same code, by necessity, means that a single type of code is used (because the code, and the machine that reads the code, are the same) and ignores the different roles of the container and carrier in the automated system. [Miller Decl. ¶ 13]. The StreamLAB's use of different but allegedly "associated" codes is a substantially different way of operating because it allows the system to exploit the differences between different types of codes to conform to the respective – and different – roles of test tubes and pucks. For example, the flexibility, low cost and ease of using unique barcode labels, and their interoperability with existing laboratory information systems, make barcodes appropriate for coding test tubes. [*Id.* ¶¶ 10, 13, Exh. B]. But because barcode labels are externally placed and machine readable by optically scanning light and dark bars (which require an unblocked line of sight), they must be specially oriented, and label damage and optical interference can corrupt a reading. [*Id.* ¶ 13]. RFID chips are superior for tracking the pucks at multiple locations on a conveyor belt because they are more reliable, cheaper to read, require no particular orientation and can be permanently embedded into a puck. [*Id.* ¶¶ 11, 13, Exh. A]. A system which uses different codes operates in a substantially different way than a system which uses the same codes. Siemens' multiple ID technology realizes the advantages of applying a different code technology to each component (container and carrier). [*Id.* ¶ 13].

Second, using a different but allegedly "associated" code in the puck is also a substantially different way of operating because it eliminates the need, under the claimed method, for a technician (or machine) to handle, manage, code and/or re-code a puck every time it carries a new test tube and specimen. [*Id.* ¶ 14]. Such handling would not only expose the system to the potential for human (or machine) error, but it would present serious issues concerning how to efficiently and reliably remove and replace codes on re-usable pucks, or require a constant supply of new pucks for each new test tube to be carried. [*Id.*]

Finally, unlike the claimed method, in which a single container must be transported by a single carrier that shares its same code throughout the process, the StreamLAB system operates such that a test tube can be, and often is, placed in different pucks during the process. [*Id.* ¶ 15]. Specifically, receiving the RFID number in a puck, unlike reading the "same code" used in the claimed method, does not directly access the identity of the specimen. [*Id.*; Hilgard Decl. Exh. C, '670 patent, claim 1; *see also* Exh. B, Parent FH at SHD001451, First Amendment at p. 7]. Thus, the independent code in the puck allows it to separate from the test tube during specimen preparation and testing, and to either continue along the track empty or "pick up" and associate with a different test tube, with yet another barcode. [Miller Decl. ¶ 15, Exh. B]. And when the first test tube is prepared, tested or otherwise ready for continued transport on the conveyor, a different puck than the one that originally carried the test tube can carry it to the next destination.[14] [*Id.* ¶¶ 15, 16]. Code independence is thus critical to efficiently process multiple specimens and maximize throughput. [*Id.* ¶ 15]. It also allows the StreamLAB system to re-use pucks *without* changing their RFID numbers regardless of the number of test tubes carried,

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14 Thus, for example, where a sample requires centrifugation (a spinning process that separates a patient sample in preparation for testing), a puck will transport the test tube to the centrifuge module. At the centrifuge module, a robotic arm removes the test tube from the puck, loads it onto racks for centrifugation, and the puck continues on its way around the conveyor. [*Id.* ¶ 16, Exh. B]. After centrifugation, the robotic arm places the test tube into whatever puck is then available on the conveyor – which is not necessarily the original puck that transported the test tube to the centrifuge module – for continued processing and testing on the system. [*Id.*] Then, a barcode reader located at the centrifuge module re-identifies the test tube, RFID antennas located under the drive belt receive the RFID number from the puck, the computer associates the two and the new puck is tracked throughout the remaining process. [*Id.* ¶ 16].

thereby conserving resources and reducing the possibility of human or machine error (in re-coding the pucks). [*Id.*] In short, the interchangeability of pucks and test tubes – permitted only by the use of different codes and precluded by the use of the "same code" – is a fundamentally different way of operating than claimed in the '670 patent, which requires a container and carrier to either remain "married", or if separated, to re-unite, throughout the entire process.[15] [*Id.* ¶¶ 13-16; Hilgard Decl. Exh. A, '670 patent at 3:47-53].

2. The Insubstantial Differences Test Is Not Met

Plaintiffs fare no better under the similar "insubstantial differences" test for DOE, under which "[a]n element in the accused device is equivalent to a claim limitation if the only differences between the two are insubstantial." *Honeywell,* 370 F.3d at 1139; *see Wavetronix,* 573 F.3d at 1345 (affirming summary judgment of non-infringement under DOE). Here, as set forth above, the differences between the claim limitation and the StreamLAB system's operation are substantial because using different codes is not only substantially different than – *it is the opposite of* – using the same code on both carrier and container. Moreover, as set forth above, not only does StreamLAB give different codes to the test tube (container) and puck (carrier), it uses different *types* of codes – RFID chips, on the one hand, and barcode labels, on the other hand. [Miller Decl. ¶¶ 6-8]. Unlike the invention's use of the same code on container and carrier, the RFID number transmitted from the puck in the StreamLAB system remains constant and does not ever change based on the container the puck carries. [*Id.* ¶¶ 5, 6]. The RFID code

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15 That StreamLAB operates in a fundamentally different way than the claimed method is underscored by the fact that StreamLAB's advantages would be unattainable by using the same code on the puck and test tube. For example, if both were marked with the same barcode, the cost of the system would substantially increase, its tracking reliability would diminish, and each puck would have to be automatically or manually labeled each time it carried a new test tube, increasing the potential for error. [*Id.* ¶ 17]. Likewise, if both the puck and test tube used the same RFID code, then hospitals and laboratories would need to acquire new equipment to generate, program and read RFID chips in order to achieve interoperability with the StreamLAB system. And, for every new test tube it carried, a puck would either require a new RFID chip, at significant cost, or a new number would need to be written to the chip. [*Id.*] Thus, similar issues concerning how to efficiently and reliably code and re-code RFID numbers in pucks would arise. Finally, using RFID codes on test tubes would prevent hospitals from being able to incorporate human-readable information with the machine readable code on a label. [*Id.*]

need not be oriented in a special manner nor does it require a line of sight to a reader like a barcode would. [*Id.* ¶¶ 9-11]. Finally, use of an RFID number in the puck, as opposed to the invention's "same … code," is substantially different because the RFID number does not directly access, and thus remains independent from, the specimen's identity. [*Id.* ¶¶ 14-16]. In short, Plaintiffs cannot prove literal or DOE infringement, and partial summary judgment is appropriate.

IV. CONCLUSION

Plaintiffs would like this Court to ignore an essential element of each claim of the '670 patent, an element that Plaintiffs added to narrow the claims to obtain the patent. But because it is undisputed that the StreamLAB system does not use the same code on its carriers and the containers they transport, as expressly required by each claim of the '670 patent, there can be no infringement, and summary judgment in Siemens's favor as to the '670 patent is appropriate. Moreover, the applicant surrendered during prosecution broad claim language that could have permitted an accused system to use different codes, and Plaintiffs are estopped from attempting to recapture that territory under the guise of the doctrine of equivalents. Likewise, the patentee disclosed, but did not claim, the use of correlated or associated codes and thus their use is dedicated to the public and Plaintiffs are barred from asserting that their use is equivalent to using the "same machine readable code" on the carrier and container. In addition, Plaintiffs' attempt to read the "same code" language out of the claim to ensnare StreamLAB impermissibly vitiates the claim limitation. Finally, the uncontroverted facts establish that the StreamLAB system operates in a substantially different way from the method claimed in the '670 patent. And using different codes, including different technologies, to track and direct a puck is the opposite of using the same code on both the container and carrier, as required by the '670 patent claims. Plaintiffs cannot point to any genuine issue of material fact that could support a finding of infringement or defeat partial summary judgment as a matter of law. Accordingly, Siemens respectfully requests that the Court grant partial summary judgment of no literal infringement and no infringement under the DOE of the '670 patent.

DATED this 11th day of June, 2010.

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CERTIFICATE OF SERVICE

This certifies the undersigned attorney filed this document with the Court using the CM/ECF system, which caused service to be made on the following attorneys on this 11th day of June, 2010.

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